

**RESULT LIST**

7 results found in the Worldwide database for:

**mems or microelectromechanical or "micro electromechanical"** in the title AND **piezoelectric and (switch or rel;**  
title or abstract

(Results are sorted by date of upload in database)

**1 RF MEMS switch and fabrication method thereof**

Inventor: PARK JAE-YEONG (KR); LEE HEE-CHUL (KR) Applicant: LG ELECTRONICS INC

EC: H01P1/12D

IPC: H01P1/10

Publication info: **US2005156694** - 2005-07-21**2 ELECTRONIC APPARATUS WITH A MICRO-ELECTROMECHANICAL SWITCH MADE OF A PIEZOELECTRIC MATERIAL**

Inventor: PELZER HEIKO (DE); STEENEKEN PETER G (NL); (+1) Applicant: KONINKL PHILIPS ELECTRONICS NV (NL); PHILIPS INTELLECTUAL PROPERTY (DE); (+3)

EC: H01H57/00

IPC: H01H57/00; H01L41/09

Publication info: **WO2005064634** - 2005-07-14**3 Double micro mirror 2\*2 array MEMS photo switch**

Inventor: FANG HUAJUN (CN); LIU LITIAN (CN); (+1) Applicant: UNIV TSINGHUA (CN)

EC:

IPC: G02B6/32; G02B6/26; (+3)

Publication info: **CN1580841** - 2005-02-16**4 MEMS SWITCH WITH BISTABLE ELEMENT HAVING STRAIGHT BEAM COMPONENTS**

Inventor: SLICKER JAMES MELVIN; ANANTHA KRISHNAN SURIANARAYANA; (+1)

Applicant: MICROSTAR TECHNOLOGIES LLC (US)

EC:

IPC: H01H

Publication info: **WO2005024868** - 2005-03-17**5 MICRO ELECTROMECHANICAL SYSTEM SWITCH**

Inventor: BUNYAN ROBERT JOHN TREMAYNE (GB); COMBES DAVID JONATHON (GB); (+1)

Applicant: QINETIQ LTD (GB); BUNYAN ROBERT JOHN TREMAYNE (GB); (+2)

EC: H01H57/00; H01H59/00B

IPC: H01H59/00; H01H57/00

Publication info: **WO2005022575** - 2005-03-10**6 Method of enlarging a travel of piezoelectric sensor and MEMS switch employing the same**

Inventor: CHOI DOO SUN (KR); LEE TAIK MIN (KR); (+2) Applicant:

EC: H01H1/00M; H01H57/00

IPC: G02B6/26

Publication info: **US2004264878** - 2004-12-30**7 MEMS OPTICAL SWITCH AND METHOD OF MANUFACTURE**

Inventor: COUILLARD JAMES G

Applicant: CORNING INC (US)

EC: G02B6/35E; G02B6/35S

IPC: G02B6/35

Publication info: **WO0151973** - 2001-07-19

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Searching PCT (Full Text)...

[Search Summary]

Results of searching in PCT (Full Text) for:

( mems or microelectromechanical or "micro electromechanical" or "micro-electromechanical" ) near ( switch or relay ) and piezoelectric and ( contact or contacting or contacts ): 64 records

Showing records 1 to 25 of 64 :

Next 25 records

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(mems or microelectromechanical or "micro electrom

#### Title

1. (WO 2005/103784) SYSTEM AND METHOD FOR PROVIDING FAST, LOW VOLTAGE INTEGRATED OPTICAL ELEMENTS
2. (WO 2005/078752) PIEZOELECTRIC THIN-FILM ELECTROMECHANICAL MICROSYSTEM DEVICE  
[Repub: 20.10.2005]
3. (WO 2005/082774) A FABRICATION METHOD FOR MAKING A PLANAR CANTILEVER, LOW SURFACE LEAKAGE, REPRODUCIBLE AND RELIABLE METAL DIMPLE CONTACT MICRO-RELAY MEMS SWITCH, AND A MICROELECTROMECHANICAL DEVICE HAVING A COMMON GROUND PLANE LAYER AND A SET OF CONTACT TEETH AND METHOD FOR MAKING THE SAME
4. (WO 2005/078752) PIEZOELECTRIC THIN-FILM ELECTROMECHANICAL MICROSYSTEM DEVICE
5. (WO 2005/071767) APPARATUS FOR A HIGH OUTPUT SENSOR SIGNAL AND MANUFACTURING METHOD THEREOF
6. (WO 2005/069330) ELECTRO-MECHANICAL MICRO-SWITCH DEVICE
7. (WO 2005/064701) ELECTRONIC DEVICE
8. (WO 2005/042400) ELECTRONIC DEVICE
9. (WO 2005/034287) LOW LOSS RF MEMS-BASED PHASE SHIFTER
10. (WO 2005/024868) MEMS SWITCH WITH BISTABLE ELEMENT HAVING STRAIGHT BEAM COMPONENTS
11. (WO 2005/023699) FILM ACTUATOR BASED MEMS DEVICE AND METHOD
12. (WO 2005/022575) MICRO ELECTROMECHANICAL SYSTEM SWITCH.
13. (WO 2005/001863) SELF-ASSEMBLING MEMS DEVICES HAVING THERMAL ACTUATION
14. (WO 2004/095508) MESO-MICROELECTROMECHANICAL SYSTEM PACKAGE
15. (WO 2004/051744) MEMS CONTROL CHIP INTEGRATION
16. (WO 2004/038848) VARIABLE CAPACITANCE MEMBRANE ACTUATOR FOR WIDE BAND TUNING OF MICROSTRIP RESONATORS AND FILTERS
17. (WO 2004/038819) PIEZOELECTRIC SWITCH FOR TUNABLE ELECTRONIC COMPONENTS
18. (WO 2002/073673) A MICRO-ELECTRO-MECHANICAL SWITCH AND A METHOD OF USING AND MAKING THEREOF  
[Repub: 08.04.2004]



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## Canadian Patents Database

### Search Results 11/23/2005 - 14:09:25

**Search**

Query :

(( (compress <or> compression <or>

Query: (( (compress <or> compression <or> shrinking <or> shrinkage) )  
<in> abstract ) <AND> (( (piezoelectric <and> (contact <or> contacting)  
<and> (switch <or> switching <or> contact <or> contacts <or> contacting))) )  
<in> claims )

17 documents out of 1654100 matched your query. Click on its number to view the details of the document.

**Note:** All document detail pages now appear on a new Browser Window.

1. [2396347](#) PIEZOELECTRIC FILM SONIC EMITTER 80%
2. [2282546](#) METHOD AND APPARATUS FOR TREATING VENOUS INSUFFICIENCY USING DIRECTIONALLY APPLIED ENERGY 80%
3. [2469136](#) SLEEVED ULTRASONIC TRANSDUCER 77%
4. [2403562](#) VIBRATORY MOTOR AND METHOD OF MAKING AND USING SAME 77%
5. [2361833](#) LOW PROFILE ACOUSTIC SENSOR ARRAY AND SENSORS WITH PLEATED TRANSMISSION LINES AND RELATED METHODS 77%
6. [2345339](#) PARAMETRIC LOUDSPEAKER WITH ELECTRO-ACOUSTICAL DIAPHRAGM TRANSDUCER 77%
7. [2288832](#) NON-RESONANT AND DECOUPLED DROPLET GENERATOR 77%

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## Canadian Patents Database

### Search Results 11/23/2005 - 14:10:48

Query :

Query: ((mems <or> microelectromechanical <or> (micro <near> electromechanical))) <AND> ( ( (piezoelectric <and> (contact <or> contacting) <and> (switch <or> switching <or> contact <or> contacts <or> contacting)) ) <in> claims )

6 documents out of 1654100 matched your query. Click on its number to view the details of the document.

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- |    |                         |   |     |
|----|-------------------------|---|-----|
| 1. | <a href="#">2502450</a> | PROGNOSTIC HEALTH MONITORING OF FLUIDIC SYSTEMS USING MEMS (MICRO-ELECTROMECHANICAL SYSTEMS)                                      | 92% |
| 2. | <a href="#">2470085</a> | DUAL MODE FUZE  | 82% |
| 3. | <a href="#">2497099</a> | INTEGRATED DETONATORS FOR USE WITH EXPLOSIVE DEVICES  | 80% |
| 4. | <a href="#">2446344</a> | MEMBRANE-LESS MICROPHONE AND/OR SPEAKER CAPABLE OF FUNCTIONING IN A VERY WIDE RANGE OF FREQUENCIES AND WITH MUCH LESS DISTORTIONS | 80% |
| 5. | <a href="#">2379936</a> | OPTO-MECHANICAL VALVE AND VALVE ARRAY FOR FIBER-OPTIC COMMUNICATION   | 77% |
| 6. | <a href="#">1275503</a> | MICRO MECHANICAL ACTUAL TRANSDUCER HEAD ON A SLIDER   | 75% |

Last Modified: 2002-12-31

[Important Notices](#)

## [Search Summary]

Results of searching in PCT (Full Text) for:

IN/Choi and piezoelectric: 29 records

Showing records 1 to 25 of 29 :

Final 4 records

Start At

Refine Search

IN/Choi and piezoelectric

## Title

1. (WO 2005/078779) IMPRINTING APPARATUS WITH INDEPENDENTLY ACTUATING SEPARABLE MODULES
2. (WO 2005/055988) MICROPARTICLES
3. (WO 2005/044568) PRINTING HEAD FOR NANO PATTERNING
4. (WO 2005/005320) A FERROELECTRIC CERAMIC COMPOUND, A FERROELECTRIC CERAMIC SINGLE CRYSTAL, AND PREPARATION PROCESSES THEREOF
5. (WO 2004/110768) PIEZOELECTRIC INK JET PRINTER HEAD AND ITS MANUFACTURING PROCESS
6. (WO 2004/086572) TUNABLE EXTERNAL CAVITY LASER WITH ADJUSTABLE CAVITY LENGTH AND MODE-HOP SUPPRESSION
7. (WO 2004/055875) METHOD FOR PREPARING FILM STRUCTURE COMPRISING FERROELECTRIC SINGLE CRYSTAL LAYER
8. (WO 2004/044651) A CHUCKING SYSTEM AND METHOD FOR MODULATING SHAPES OF SUBSTRATES
9. (WO 2004/034730) REMOTE CONTROLLER
10. (WO 2004/016406) IMPRINT LITHOGRAPHY PROCESSES AND SYSTEMS
11. (WO 2004/013693) SCATTEROMETRY ALIGNMENT FOR IMPRINT LITHOGRAPHY
12. (WO 2004/004119) SINGLE CRYSTAL SUBSTRATE AND CUTTING METHOD THEREOF
13. (WO 03/104759) SAW SENSOR DEVICE USING SLIT ACOUSTIC WAVE AND METHOD THEREOF
14. (WO 03/090937) APPARATUS AND METHOD OF FABRICATING SMALL-SCALE DEVICES
15. (WO 03/062824) LATERAL FLOW QUANTITATIVE ASSAY METHOD AND STRIP AND LASER-INDUCED FLUORESCENCE DETECTION DEVICE THEREFOR
16. (WO 03/060425) OPTICAL APPARATUS FOR MEASURING THE TWO AND THREE-DIMENSIONAL SHAPE OF AN OBJECT
17. (WO 02/086602) MICRO-ACTUATOR AND MICRO-DEVICE USING THE SAME
18. (WO 01/086735) INTELLIGENT SWITCH FOR BATTERY  
[Repub: 19.09.2002]
19. (WO 02/067055) TEMPLATE FOR ROOM TEMPERATURE, LOW PRESSURE MICRO- AND NANO-IMPRINT LITHOGRAPHY
20. (WO 02/24063) IMPROVED SYSTEM AND METHOD FOR DETERMINING TISSUE CONTACT OF AN IMPLANTABLE MEDICAL DEVICE WITHIN A BODY
21. (WO 02/17383) FLEXURE BASED MACRO MOTION TRANSLATION STAGE
22. (WO 02/10721) METHODS FOR HIGH-PRECISION GAP AND ORIENTATION SENSING

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1	IS&R	L1	1607	(310/328).CCLS.	USPAT	2005/11/23 13:24	
2	IS&R	L2	335	(310/328).CCLS.	US-PGPUB	2005/11/23 13:28	
3	IS&R	L3	129	(310/328).CCLS.	EPO; JPO; DERWE NT; IBM_T DB	2005/11/23 13:31	
4	IS&R	L4	96	(310/330).CCLS.	US-PGPUB ; EPO; JPO; DERWE NT; IBM_T DB	2005/11/23 13:33	
5	IS&R	L5	516	(310/330).CCLS.	USPAT	2005/11/23 13:37	
6	BRS	L6	297	piezoelectric adj3 (relay or switch) same contact\$3	US-PGPUB ; USPAT ; USOCR ; EPO; JPO; DERWE NT; IBM_T DB	2005/11/23 13:38	

7	BRS	L7	703	(mems or microelectromechanical or "micro electromechanical" or "micro- electromechanical") same (switch or relay) and piezoelectric	US- PGPUB ; USPAT ; USOCR ; EPO; JPO; DERWE NT; IBM_T DB	2005/11/2 3 13:51	
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	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments
8	BRS	L8	0	Choi-doo-sun.in.	USPAT	2005/11/23 14:20	
9	BRS	L9	0	Choi-doo.in.	USPAT	2005/11/23 14:20	